HANDBOOK OF PHONOLOGICAL DATA
FROM A SAMPLE OF THE WORLD'S LANGUAGES

A Report of the Stanford Phonology Archive

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	475 Yao
475	01 p
475	02 p-aspirated
475	03 b [b-prenasalized][60] (free) [m-postglottalized][01] [61]
475	04 t[02]
475	05 t-aspirated[02]
475	06 d[02] [d-prenasalized][60] (free) [n-postglottalized][01] [61]
475	07 c[03]
475	08 c-aspirated[03]
475	09 j[03] [j-prenasalized][60] [61] (free)
475	10 k [k-prevelar][62]
475	11 k-aspirated [k-prevelar-aspirated][62]
475	12 g [g-prevelar][62] [g-prenasalized][60] (free) [g-prevelar-prenasalized][60] [62] (free) [eng-postglottalized][01] [61]
475	13 t/s
475	14 t/s-aspirated
475	15 d/z [d/z-prenasalized][60] (free)
475	16 f

	475 Yao
	17 s
	18 m [m-preglottalized][63]
	19 m-syllabic[30] (limited)
	20 m-voiceless
	21 n[02] [n-preglottalized][63]
	22 n-syllabic[30] (limited)
	23 n-voiceless[02]
	24 n-palatal [n-palatal-preglottalized][63]
	25 n-palatal-voiceless
	26 eng [eng-prevelar][62] [eng-preglottalized][63] [eng-prevelar-preglottalized][62] [63]
	27 eng-voiceless [eng-prevelar-voiceless][62]
	28 l[04] [l-preglottalized][63]
	29 l-voiceless[04]
	30 glottal stop[04]
	31 h
	51 i [iota][64] (free)
	52 e [e-mid][64]

	475 Yao
	(free) [epsilon-dot][06] [65] [epsilon][65]
	53 ash
	54 a [ash-dot][66] [caret][67] [a-front][68] [a-fronted][69]
	55 a-long
	56 u [upsilon][70] (free)
	57 o [schwa][06] [71]
	58 o-open
	59 yod [e-glide][72]
	60 yod-voiceless
	61 w [o-glide][72]
	62 w-voiceless
	81 high-falling[07] [high][73]
	82 higher-mid[08]
	83 mid-falling[09]
	84 lower-mid-rising[10]
	85 lower-mid-falling-pharyngealized[11]
	86 low-creaky voice[12]

475 $a Yao $b Hwei Kang Pa $d Miao-Yao $e N Thailand (Chiengrai) $f 1 million $g Merritt Ruhlen $g Marilyn Vihman (review) $g John Crothers (editor)

475 $a Purnell, Herbert C., Jr. $b 1965 $c Phonology of a Yao Dialect $f (Hartford studies in Linguistics, No. 15) $g Hartford: Hartford Seminary Foundation

475 $a **GLIDES** $A Purnell refers to the consonant-plus-glide clusters as "labialized" and "palatalized" consonants, though he treats them as clusters in his discussion of the syllable and in his charts of segment distribution. Clusters with /w/ cannot be followed by /u/ or /o-open/, those with /yod/ cannot be followed by /i/ or /ash/. (p.74)

475 $a **INTONATION** $A "Intonation contours...distinguish one sense, mood, or feeling from another. Although the pitch variations of Yao intonation are usually realized on only one syllable as [sic] a clause (often the final syllable), the difference of feeling or mood is spread over the entire clause. This is the usual pattern in tone languages." (p.41) The author distinguishes seven intonation patterns: (1) normal, (2) sustained, (3) regular question, (4) content

question, (5) exaggerated, (6) forceful, (7) contrastive. "All intonation patterns except normal and part of regular question raise the pitch of the contour, whatever feeling or mood is implied.... When an intonation pattern other than normal is used, the end points of the contours are significant. All tonal oppositions are neutralized with the exaggerated pattern and on the first member of the reduplicated pair with the contrastive pattern." (p.42f)

475 $a **NASALIZED VOWELS (NON-DISTINCTIVE)** $a **PHARYNGEALIZED VOWELS (NON-DISTINCTIVE)** $a **CREAKY VOICE VOWELS (NON-DISTINCTIVE)** $A "Vowels occurring with the /lower-mid-falling-pharyngealized/ tone are pharyngealized. Vowels occurring with /low-creaky voice/ tone are glottalized. Vowels contiguous to nasals are slightly nasalized." (p.78-79)

475 $a **POSTGLOTTALIZED NASALS** $A The postglottalized nasal phones, which occur only syllable-finally, contrast with plain final nasals. We follow Purnell in assigning them to the voiced stop phonemes, which otherwise occur only initially. [MV]

475 $a **STRESS** $A Purnell distinguishes primary, secondary, and tertiary stress, which are not phonemic. Most words are monosyllabic. Disyllables are stressed finally, with tertiary stress on the first syllable. In general disyllabic compounds seem to show primary stress on the last syllable and secondary or tertiary stress on the first, with various degrees of reduction in the segments and tone of the first syllable. (p.24ff on stress; p.9ff on reduced syllables) [JHC]

475 $a **SYLLABLE** $A C(G)V(G)(C) $A Two exceptions (found in one word each) involve the sequences /w.yod/ and /yod.w/ following an initial stop. (p.73) If VG is a diphthong ending in /a/ there can be no G. $A final C: /b, d, g/ (= postglottalized nasals phonetically); nasals; /glottal stop/ (p.75)

475 $a **TENSE CONSONANTS (NON-DISTINCTIVE)** $A "All syllable initial voiceless allophones exhibit a gradation of fortition [i.e., degree of tenseness] which is directly proportional to the stress level of that syllable (p.52); initial voiced allophones are lenis. (p.53)

475 $a **TONE** $A domain of tone: syllable $A "The Yao tonal system is basically a contour type with a certain amount of register overlap...." (p.30f) "The relative starting points and direction of the glides are important; the end points are not. All tones tend to be slightly higher in clause final position with sustained intonation." (p.34)

475 01 $A The postglottalized nasal phones have "weak voicing at...onset" and are "terminated by sharp glottal stricture." When a vowel follows in the next word they are "accompanied by simple nasal release; when /h/ follows "the release may be either simple or a weakly voiced homorganic syllabic" (i.e., the glottal stricture may fall within the nasal). (p.58ff)

475 02 $A /t/, /t-aspirated/, /d/, and /n/ are "apico-dental...with broad tongue-tip contact with the backs of the upper teeth." (p.54ff)

475 03 $A The palatals have "firm back-blade contact with the palatal region." (p.54ff)

475 04 $A /l/ is produced "with high spread tongue position." (p.61)

475 05 $A "In initial position /glottal stop/ has slight to complete closure of the vocal cords and a wide range of production varying from inaudible articulation to full articulation. In final position /glottal stop/ has complete closure and full articulation." (p.55)

475 06 $A The allophones here termed [epsilon-dot] (/e/) and [schwa] (/o/) are described as "front-central" and "central-back," respectively. (p.80, 82)

475 07 $A The /high-falling/ tone is "normally a slight rise followed by a fall to median pitch.... In normal rise-fall contour the first part of the syllable is stressed." (p.34)

475 08 $A The /higher-mid/ tone has "a very slight fall" as "an occasional alternate." (p.35)

475 09 $A The /mid-falling/ tone begins "about the middle of the vocal range and [ends] near the bottom." (p.35)

475 10 $A The /lower-mid-rising/ tone begins "slightly below median pitch and [ends] somewhat above it." (p.35)

475 11 $A The /lower-mid-falling-pharyngealized/ tone consists of "a slight rise followed by a fall to the bottom of the range. Pharyngealization throughout...stressed on the second part." (p.35)

475 12 $A The /low-creaky voice/ tone is "normally level with glottalization...throughout. A very slight fall is an occasional alternate." (p.35)

475 30 $A The syllabic nasals occur only in three or four lexical items each. (p.60f)

475 60 $A The voiced obstruents may be prenasalized word-initially "in slower speech." (p.53)

475 61 $A The voiced obstruents are realized word-finally as post-glottalized nasals. Note there is no final /j/. (p.58f)

475 62 $A The velars are fronted before front vowels. (p.53)

475 63 $A Voiced continuants are preglottalized when word-initial in a syllable bearing the /high-falling/, /higher-mid/, or /lower-mid-rising/ tone and following a "nuclear immediate constituent" bearing the /mid-falling/ tone. (p.71) (There are three lexical exceptions.)

475 64 $A /i/ and /e/ may be lowered before a stop or nasal final.

475 65 $A /e/ is realized as [epsilon-dot] following a palatal and preceding a labial or vice-versa, and as [epsilon] next to palatals otherwise. (p.80)

475 66 $A /a/ is realized as [ash-dot] following a palatal and preceding a velar, and also before /w/ and non-velars when no palatal precedes. (p.81)

475 67 $A /a/ is realized as [caret] following a palatal and preceding a labial. (p.81)

475 68 $A /a/ is realized as [a-front] following a palatal or /w/ and preceding /yod/. (p.81)

475 69 $A /a/ is realized as [a-fronted] following a palatal in other environments than those listed above. (p.81)

475 70 $A /u/ may be realized as [upsilon] before a dental. (p.82)

475 71 $A /o/ is realized as [schwa] next to /w/. (p.82)

475 72 $A /yod/ is realized as [e-glide] and /w/ as [o-glide] post-vocalically. (p.63f)

475 73 $A The /high-falling/ tone is level before a syllable-final stop and in non-final clause position. (p.34)